

IN THE CLAIMS:

1-51. (Canceled)

52. (Previously presented) An isolated nucleic acid molecule comprising a nucleotide sequence which encodes a protein, wherein said protein comprises a SOCS box which comprises the amino acid sequence as set forth in SEQ ID NO: 55, and wherein said protein inhibits Interleukin-6 mediated signal transduction.

53. (Previously presented) An isolated nucleic acid molecule comprising a nucleotide sequence which encodes a protein, wherein said protein comprises the amino acid sequence as set forth in SEQ ID NO: 10.

54. (Previously presented) An isolated nucleic acid molecule comprising the nucleotide sequence as set forth in SEQ ID NO: 3.

55-62. (Canceled)

63. (Previously presented) An isolated protein consisting of the amino acid sequence as set forth in SEQ ID NO: 4.

64-67. (Canceled)

68. (Currently amended) An isolated nucleic acid molecule consisting of a SOCS protein coding sequence, wherein said SOCS protein comprises a SOCS box which comprises an amino acid sequence as set forth in SEQ ID NO: 52 or SEQ ID NO: 55, or an amino acid sequence having at least about 70% similarity identity to SEQ ID NO: 52 or SEQ ID NO: 55, and wherein said protein inhibits Interleukin-6 mediated signal transduction.

69. (Currently amended) The isolated nucleic acid molecule of claim 68, wherein said protein is further characterized as comprising an amino acid sequence as set forth in any one of SEQ ID NO: 4, SEQ ID NO: 10 or SEQ ID NO: 12, or an amino acid sequence having at least ~~about~~ 50% ~~similarity~~ identity to any one of SEQ ID NO: 4, SEQ ID NO: 10 or SEQ ID NO: 12.

70. (Previously presented) An isolated nucleic acid molecule consisting of the nucleotide sequence as set forth in SEQ ID NO: 3.

71. (Previously presented) An isolated nucleic acid molecule comprising a nucleotide sequence which encodes a protein, wherein said protein comprises the amino acid sequence as set forth in SEQ ID NO: 4.

72. (Previously presented) An isolated nucleic acid molecule comprising the nucleotide sequence as set forth in SEQ ID NO: 9.

73. (Previously presented) An isolated nucleic acid molecule consisting of the nucleotide sequence as set forth in SEQ ID NO: 9.

74. (Previously presented) An isolated nucleic acid molecule consisting of the nucleotide sequence as set forth in SEQ ID NO: 11.

75. (Previously presented) An expression vector comprising the nucleic acid molecule of any one of claims 52-54 or 68-74.

76. (Previously presented) A host cell comprising the expression vector of claim 74.

77. (Previously presented) A method of producing a SOCS protein, said method comprising culturing the host cell of claim 76 under conditions allowing the expression of said SOCS protein, and isolating said SOCS protein.

78. (Previously presented) An isolated protein consisting of the amino acid sequence as set forth in SEQ ID NO: 10.

79. (Previously presented) An isolated protein consisting of the amino acid sequence as set forth in SEQ ID NO: 12.

80. (Previously presented) The isolated protein of claim 63, 78 or 79, wherein said protein is derived from mouse, rat or human.